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PN - KR2002083652 A 20021104
 TI - METHOD FOR PREPARING TiO₂ ULTRAFINE PARTICLE FROM TITANIUM TETRACHLORIDE BY USING ALCOHOL OR ACETONE
 PA - AHAE CORP (KR); PAK CHONG SIK (KR); YANG YEONG SEOK (KR)
 IN - PAK CHONG SIK (KR); YANG YEONG SEOK (KR)
 AP - KR20010023137 20010427
 PR - KR20010023137 20010427
 DT - I

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AN - 2003-455030 [43]
 TI - Method for preparing titanium oxide ultrafine particle from titanium tetrachloride by using alcohol or acetone
 AB - KR2002083652 NOVELTY - Provided is a method for preparing titanium oxide ultrafine particle, which comprises the steps of forming a solution of titanium tetrachloride by using aqueous acetone or alcohol, and producing ultrafine titanium oxide particle by improved precipitation and washing.
 - DETAILED DESCRIPTION - The method comprises the steps of:
 - (i) introducing titanium tetrachloride (TiCl₄) into reactor at -10 deg. C to 10 deg. C;
 - (ii) adding an aqueous solution of 0.95 wt.% acetone or alcohols (methanol, ethanol, propanol, or butanol) into the reactor to form aqueous Ti⁴⁺ solution of 1.4 M or less, which consists of TiOCl₂ and HCl;
 - (iii) adding distilled water to the solution of the step(ii) at ambient temperature to dilute the concentration of the Ti⁴⁺ to 0.01-1.4M;
 - (iv) placing the diluted solution of the step(iii) at 15-200 deg. C to form the precipitate (TiO₂) in the solution;
 - (v) filtrating the precipitate and diluting slurry with distilled water, and adding an aqueous solution of strong alkali into the diluted solution to adjust a pH of the solution to 6-8, so as to form a colloid solution; and
 - (vi) precipitating and filtrating the solution of the step(v), and washing the filtrate in 1-3 times, removing a remaining base from the solution and drying the solution.
 - (Dwg.1/10)
 IW - METHOD PREPARATION TITANIUM OXIDE ULTRAFINE PARTICLE TITANIUM ALCOHOL ACETONE
 PN - KR420277 B 20040302 DW200443 C01G23/053 000pp
 - KR2002083652 A 20021104 DW200343 C01G23/053 001pp
 IC - C01G23/053
 MC - E35-K01 G01-A08
 DC - E32 G01
 PA - (AHAE-N) AHAE CORP
 - (PAKC-I) PAK C S
 - (YANG-I) YANG Y S
 - (AHEA-N) AHE CORP
 - (PARK-I) PARK J S
 IN - PAK C S; YANG Y S; PARK J S
 AP - KR20010023137 20010427; [Previous Publ. KR2002083652]
 PR - KR20010023137 20010427